

Claims

1. Method for the transmission of information via an optical data transmission line, the ends of which are formed in each case by an optoelectronic interface, a light source which can be modulated, such as e.g. a laser, being provided transmitter side, and a light-sensitive receive element, such as e.g. a photodiode, being provided receiver side, and the signal, varying according to the received light intensity, at the output of the receive element being amplified and processed, and the light received by the receive element being recorded independently of the current strength of the modulated signal as such and displayed at a signal monitoring output to show the presence or otherwise of a data signal, characterized in that, at transmitter side, the emitted light quantity is lowered so far below the minimum threshold value of the signal amplitude used for the data transmission that the signal monitoring output at the receive-side end records and displays a missing input signal of the light receive element, and the emitted light quantity is then raised above the threshold value again, the lowering and raising of the light energy occurring in a predetermined, relatively slow, time cycle in encoded form, the correspondingly encoded signal of the signal monitoring output being evaluated by a corresponding evaluation logic.
2. Method according to claim 1, a laser being provided as transmit element and a photodiode as receive element, characterized in that the laser signal is switched on and off by the drive electronics of the transmit laser via a "Laser Enable" signal.
3. Method according to claim 1, characterized in that the laser supply voltage is switched on and off in encoded form.
4. Method according to one of claims 1 to 3, characterized in that the evaluation logic is implemented by software.
5. Method according to one of claims 1 to 4, characterized in that the evaluation takes place in a separate microprocessor independent of the evaluation of the normal data signal.

6. A start bit is transmitted at the beginning of a transmitted data word and a stop bit at the end of the data word.
7. Method according to claim 5, characterized in that the format specification of the data words corresponds to an RS 232 interface.
8. Device for the transmission of information via an optical data transmission line with, in each case, an optoelectronic interface at the ends of the data transmission line laid remote from each other, the interface having a light transmitter, in particular a laser, transmitter side, and electronics which have a modulation of the transmitted light corresponding to a data signal to be transmitted, and, receive side, having a light-sensitive receive element, the output signal of which is modulated analogously to the modulated input signal, a monitoring device being additionally provided receiver side which, independently of the modulation of the receive signal, records the presence or otherwise of an input signal and displays it at a signal monitoring output, characterized in that, transmitter side, devices are provided for the alternative, clock-pulse-controlled lowering and raising of the transmitted light energy, the intensity of the transmit light in the lowered state being lowered below a threshold value at which the receiver-side signal monitoring device side records the presence of a data transmission signal, and an evaluation device being provided for the evaluation of the output signal encoded corresponding to the raising and lowering of the transmission signal.
9. Device according to claim 8, characterized in that a laser is provided as light transmission device.
10. Device according to claim 9, characterized in that a separate microprocessor is provided for the evaluation of the encoded signal monitoring signal.
11. Device according to claim 10, characterized in that the evaluation logic is implemented by software.
12. Device according to one of claims 8 to 11, characterized in that clock-pulse-controllable drive electronics for a laser are provided as a device for raising and lowering the light energy.

13. Device according to one of claims 8 to 12, characterized in that a device is provided for the clock-pulse-controlled switching on and off of the laser supply voltage.